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TADEMAN TO THE TRADEMAN	Application Number	10/698,995
TRANSMITTAL	Filing Date	October 30, 2003
FORM	First Named Inventor	Dr. Atul Navinchandra Parikh
(to be used for all correspondence after initial filing)	Group Art Unit	1762
	Examiner Name	Unassigned
Total Number of Pages in This Submission 7	Attorney Docket Number	309J-000740US

	·		Examiner Name		Unassigned	
Total Number of	Pages in This Submi	ssion 7	Attorney Docket Numbe	r	309J-000740US	
		ENCLO	SURES (check all that ap	ply)		
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Amendment	t / Response	Licens	ing-related Papers		Appeal Communication to Group  (Appeal Notice, Brief, Reply Brief)	
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Affid	avits/declaration(s)		n to Convert to a onal Application		Status Letter	
Extension o	f Time Request	Power Chang Addres	of Attorney, Revocation e of Correspondence	X	Additional Enclosure(s) (please identify below):	
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	SIGNATU	RE OF APPL	ICANT, ATTORNEY, OR	AGE	NT	
Firm or Individual name	or Paul Liptlepage, Reg. No. 48,581, Quine Intellectual Property Law Group, P.C.					
Signature Hull Till Ma						
Date	September 30, 2	2004	<u> </u>		·	
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Alexandria, VA 22313-1450, on September 30, 2004

QUINE INTELLECTUAL PROPERTY LAW GROUP, P.C.

By Dehrah Berurch

Deborah Berwick

Attorney Docket No. 309J-000740US Client Ref. No. 2003-086-5

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Dr. Atul Navinchandra Parikh, et al.

Application No.: 10/698,995

Filed: October 30, 2003

For: Direct micro-patterning of lipid

bilayers using UV light and selected

uses thereof

Examiner: Unassigned

Art Unit: 1762

INFORMATION DISCLOSURE

STATEMENT UNDER 37 CFR § 1.97 and

§ 1.98

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

The references cited on attached form PTO-1449 are being called to the attention of the Examiner. Copies of the references are enclosed. It is respectfully requested that the cited information be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Dr. Atul Navinchandra Parikh, et al.

Application No.: 10/698,995

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Applicant believes that <u>no fee is required</u> for submission of this statement, since it is being submitted prior to the first Office Action on the merits per 37 CFR 1.97(b)(3). However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 50-0893. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,

Paul Littlepage Reg. No. 48,581

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Substitute for form 1449A-B/PTO	Co	omplete if Known
	Application Number	10/698,995
INFORMATION DISCLOSURE	Filing Date	October 30, 2003
INFORMATION DISCLOSURE ESTATEMENT BY APPLICANT	First Named Inventor	Dr. Atul Navinchandra Parikh
~ (·)	Group Art Unit	1762
4 2004 22	Examiner Name	Unassigned
(wise as many sheets as necessary)	Attorney Docket Number	309J-000740US
.8	Date Submitted	September 30, 2004

HADE	U.S. PATENT DOCUMENTS								
Examiner Initials	Cite No.	U.S. Patent Docui Number	ment Kind Code (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, lines, Where Relevant Passages or Relevant Figures Appeal			
	1	2002/0094544	A1	Fang et al.	07-18-2002				
	2	6,228,326		Boxer et al.	05-08-2001				

	FOREIGN PATENT DOCUMENTS							•
Examiner	Cite		Foreign Patent Docum	ent Kind Code	Name of Patentee or	Date of Publication of Cited Document	Pages, Columns, Lines, Where Relevant Passages	Т
Initials	No.	Office	Number	(if known)	Applicant of Cited Document	MM-DD-YYYY	or Relevant Figures Appear	Ļ
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		OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS	
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	т
	3	ANDERSON ET AL. (2000) "Concentration of MHC Class II Molecules in Lipid Rafts Facilitates Antigen Presentation." <i>Nature Immunology</i> 1(2): 156-162.	
	4	ANDERSON ET AL. (2002) "A Role for Lipid Shells in Targeting Proteins to Caveolae, Rafts, and Other Lipid Domains." <i>Science</i> 296:1821-1825.	
	5	AXELROD ET AL. (1979) "Mobility Measurement by Analysis of Fluorescence Photobleaching Recovery Kinetics." <i>Biophysical Journal</i> 16:1055-1069	
	6	BAYERL AND BLOOM (1990) "Physical properties of single phospholipid bilayers adsorbed to micro glass beads." <i>Biophysical Journal</i> 58:357-362.	
	7	BAYLEY AND CREMER (2001) "Stochastic sensors inspired by biology." <i>Nature</i> 413:226-230.	
	8	BOXER (2000) "Molecular transport and organization in supported lipid membranes." Current Opinion in Chemical Biology 4:704-709.	
	9	CREMER ET AL. (1999) "Creating Spatially Addressed Arrays of Planar Supported Fluid Phospholipid Membranes." <i>Journal of American Chemistry Society</i> 121:8130-8131.	
	10	CREMER ET AL. (1999) "Formation and Spreading of Lipid Bilayers on Planar Glass Supports." <i>Journal of Physical Chemistry B</i> 103(13):2554-2559.	
	11	DIETRICH ET AL. (2001) "Lipid Rafts Reconstituted in Model Membranes." <i>Biophysical Journal</i> 80:1417-1428.	
	12	EISERICH ET AL. (1998) "Formation of nitric oxide-derived inflammatory oxidants by myeloperoxidase in neutrophils." <i>Nature</i> 391:393-397.	

Examiner	Date	
Signature	Considered	

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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	13	EISERICH ET AL. (2002) "Myeloperoxidase, a Leukocyte-Derived Vascular NO Oxidase." Science 296:2391-2394.
	14	FANG ET AL. (2002) "Membrane Protein Microarrays." Journal of American Chemistry Society 124(11): 2394-2395.
	15	FISHMAN ET AL. (1993) "Gangliosides as Receptors for Bacterial Enterotoxins." Advances in Lipid Research 25:165-187.
	16	FODOR ET AL. (1991) "Light-Directed, Spatially Addressable Parallel Chemical Synthesis." Science 251:767-773
	17	FRISBIE ET AL. (1994) "Functional Group Imaging by Chemical Force Microscopy." Science 265:2071-2074.
-	18	GRAKOUI ET AL. (1999) "The Immunological Synapse: A Molecular Machine Controlling T Cell Activation." Science 285: 221-227.
	19	GROVES ET AL. (1995) "Electric Field-Induced Concentration Gradients in Planar Supported Bilayers." Biophysical Journal 69:1972-1975.
	20	GROVES ET AL. (1997) "Micropatterning Fluid Lipid Bilayers on Solid Supports." Science 275:651-653.
	21	GROVES ET AL. (1998) "Substrate-Membrane Interactions: Mechanism for Imposing Patterns on a Fluid Bilayers Membrane." <i>Langmuir</i> 14(12): 3347-3350.
	22	GROVES ET AL. (2001) "Control of Cell Adhesion and Growth with Micropatterned Support Lipid Membranes." <i>Langmuir</i> 17(17):5129-5133.
	23	GROVES AND BOXER. (2002) "Micropattern Formation in Supported Lipid Membranes."  Accounts of Chemical Research 35:149-157.
	24	HOVIS AND BOXER (2001) "Patterning and Composition Arrays of Supported Lipid Bilayers by Microcontact Printing." <i>Langmuir</i> 17(11):3400-3405.
	25	HOVIS AND BOXER (2000) "Patterning Barriers to Lateral Diffusion in Supported Lipid Bilayer Membranes by Blotting and Stamping." <i>Langmuir</i> 16(3):894-897.
	26	KALB ET AL. (1992) "Formation of supported planar bilayers by fusion of vesicles to supported phospholipid monolayers." <i>Biochimica et Biophysica Acta</i> 1103:307-316.
	27	KUNG ET AL. (2000) "Printing via Photolithography on Micropartitioned Fluid Lipid Membranes." Advanced Materials 12(10): 731-734.
	28	KUNG ET AL. (2000) "Patterning Hybrid Surfaces of Proteins and Supported Lipid Bilayers." Langmuir 16(17):6773-6776.

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	Group Art Unit	1762		
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	29	LUM ET AL. (2002) "Dynamic Regulation of LFA-1 Activation and Neutrophil Arrest on Intercellular Adhesion Molecule 1 (ICAM-1) in Shear Flow." The Journal of Biological Chemistry 277:20660-20670.
	30	MAYER ET AL. (1986) "Vesicles of variable sizes produced by a rapid extrusion procedure." Biochimica et Biophysica Acta 858:161-168.
	31	MCCONNELL ET AL. (1986) "Supported planar membranes in studies of cell-cell recognition on the immune system." Biochimica et Biophysica Acta 864:95-106.
	32	MORIGAKI ET AL. (2001) "Patterning Solid-Supported Lipid Bilayer Membranes by Lithographic Polymerization of a Diacetylene Lipid." <i>Angew Chem Int. Ed.</i> 40:172-174.
	33	NISSEN ET AL. (2001) "Interface Dynamics of Lipid Membrane Spreading on Solid Surfaces." Physical Review Letters 86:1904-1907.
	34	OVERNEY ET AL. (1994) "Force Microscopy Study of Friction and Elastic Compliance of Phase-Seperated Organic Thin Films." <i>Langmuir</i> 10:1281-1288.
	35	PARIKH ET AL. (1999) "Infrared Spectroscopic Characterization of Lipid-Alkylsiloxane Hybrid Bilayer Membranes at Oxide Substrates." <i>Langmuir</i> 15:5369-5381.
	36	PLANT (1993) "Self-Assembled Phospholipid/Alkanethiol Biomimetic Bilayers on Gold." Langmuir 9:2764-2767.
	37	ROSENBERGER ET AL. (2000) "Microbial Pathogenesis: Lipid Rafts as Pathogen Portals." Current Biology 10: R823-R825.
	38	SACKMANN (1996) "Supported Membranes: Scientific and Practical Applications." Science 271:43-48.
	39	SACKMANN AND TANAKA (2000) "Supported Membranes on Soft Polymer Cushions: Fabrication, Characterization and Applications." <i>Trends in Biotechnology</i> 18:58-64.
	40	SALOME ET AL. (1998) "Characterization of Membrane Domains by Frap Experiments at Variable Observation Areas." <i>Eur Biophys Journal</i> 27:391-402.
11000	41	SANDRE ET AL. (1999) "Dynamics of Transient Pores in Stretched Vesicles." <i>Proceedings of the National Academy of Sciences USA</i> 96:10591-10596.
	42	SIMMONS AND IKONEN (1997) "Functional Rafts in Cell Membranes." Nature 387:569-572.
	43 SINGH AND KELLER (1991) "Atomic Force Microscopy of Supported Planar Membrane Bilayers." <i>Biophysical Journal</i> 60:1401-1410.	
	44	SINNER AND KNOLL. (2001) "Functional Tethered Membranes." Current Opinion in Chemical Biology 5(6): 705-711.
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45	SOHN ET AL. (2003) "Crucial Role of Local Peroxynitrite Formation in Neutrophil-induced Endothelial Cell Activation." <i>Cardiovascular Research</i> 57(3):804-815.	
46	SOUMPASIS (1983) "Theoretical Analysis of Fluorescence Photobleaching Recovery Experiements." <i>Biophysical Journal</i> 41:95-97.	
 47	ULMAN ET AL. (1997) "Micropatterning Fluid Membranes." Advanced Matter 9(14): 1121-1123.	
48	VAN MEER (2002) "The Different Hues of Lipid Rafts." Science 296:855-857.	
 49	VAN OUDENAARDEN AND BOXER (1999) "Brownian Ratchets: Molecular Separations inLipid Bilayers Supported on Patterned Arrays." Science 285(5430):1046-1048.	
50	WENTWORTH ET AL. (2002) "Evidence for Antibody-Catalyzed Ozone Formation in Bacterial Killing and Inflammation." Science 298:2195-2199.	

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